Notice of Allowability	Application No.	Applicant(s)	
	10/081,346	WEISNER ET AL.	
	Examiner	Art Unit	
	Mark W. Bockelman	3766	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *interview of 11-11-2005*.

2. ☒ The allowed claim(s) is/are *1-13,18-30 and 35-45*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 11-11-05
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

MARK BOCKELMAN
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment including charging deposit account 50-0692 for the additional claims fee ($150) was given in a telephone interview with Lee Mandell on 11-11-2005.

The application has been amended as follows:

1. (Currently Amended) A system for selectively enabling/disabling at least a portion of the operation [output circuitry] of an implantable device in response to an externally applied pulsed magnetic field, wherein said implantable device is configured for stimulating tissue within a patient's body and said implantable device is contained within a sealed elongated housing having an axial dimension of less than 60 mm and a lateral dimension of less than 6 mm, said system comprising:

a sensor within said implantable device sensitive to the presence of an externally applied magnetic field;

a controller within said implantable device coupled to said sensor for monitoring the presence of said externally applied magnetic field and determining [a] timing [sequence] sequences for the application and removal of said externally provided magnetic field; and wherein said controller is configured to

enable/disable at least a portion of the operation [output circuitry] of [a selected one of] said implantable [devices] device in [direct] response to the detection of an identifiable timing sequence of the application and removal of said externally provided magnetic field; and

a receiver within said implantable device for receiving at least one implantable device operation parameter transmitted externally of said implantable device, said receiver capable of receiving said at least one operation parameter independent of said sensor.

2. (Previously presented) The system of claim 1 additionally comprising:

a handheld device configured to be located external to the patient's body; and

a mechanism, configured for activation by the patient, within said handheld device configured to provide an identifiable timing sequence of the application and removal of a magnetic field.

3. (Original)

The system of claim 2 wherein said mechanism is spring powered.

4. (Original) The system of claim 2 wherein said mechanism is electro-mechanically powered.

5. (Original) The system of claim 1 additionally comprising:

a handheld device configured to be located external to the patient's body;

a coil within said handheld device suitable for generating a magnetic field when energized;

drive circuitry within said handheld device for energizing said coil;

a controller within said handheld device for generating a sequence of magnetic field; and

a power source for powering said handheld device.

6. (Orlginal) The system of claim 1 wherein said sensor comprises a magnetoresistive sensor.

7. (Original) The system of claim 1 wherein said sensor comprises a saturated core sensor.

8. (Original) The system of claim 1 wherein said sensor dissipates power when sensing a magnetic field and said implantable device additionally comprises circuitry for periodically applying and removing power from said sensor and sampling said sensor during time periods corresponding to when said power is applied.

9. (Original) The system of claim 1 wherein said sensor is configured for measuring the intensity of said externally applied magnetic field.

10. (Original) The system of claim 9 wherein said sensor comprises a magnetoresistive sensor.

11. (Original) The system of claim 1 wherein said sensor is configured for measuring the polarity of said externally applied magnetic field.

12. (Original) The system of claim 1 wherein said sensor is configured for measuring the intensity and the polarity of said externally applied magnetic field.

13. (Original) The system of claim 12 wherein said sensor comprises:

a magnetoresistive sensor; and

a bias magnet.

14. (Canceled)

15. (Canceled)

16. (Canceled)

17. (Canceled)

18. (Currently amended) A system for selectively enabling/disabling at least a portion of the operation [output circuitry] of an implantable device in response to an externally applied pulsed magnetic field, wherein said implantable device is configured for stimulating tissue within a patient's body, said system comprising:

a sensor within said implantable device sensitive to the presence of an

externally applied magnetic field;

a controller within said implantable device coupled to said sensor for monitoring the presence of said externally applied magnetic field and determining [a] timing [sequence] sequences for the application and removal of said externally provided magnetic field; and wherein

said controller is configured to enable/disable at least a portion of the operation [output circuitry] of [a selected one of] said implantable [devices] device in [direct] response to detection of an identifiable timing sequence of the application and removal of said externally provided magnetic field; and

a receiver within said implantable device for receiving at least one implantable device operation parameter transmitted externally of said implantable device, said receiver capable of receiving said at least one operation parameter independent of said sensor.

19. (Previously presented) The system of claim 18 additionally comprising:

a handheld device configured to be located external to the patient's body; and

a mechanism, configured for activation by the patient, within said handheld device configured to provide an identifiable timing sequence of the application and removal of a magnetic field.

20. (Original) The system of claim 19 wherein said mechanism is spring powered.

21. (Original) The system of claim 19 wherein said mechanism is electro-mechanically powered.

22. (Original) The system of claim 18 additionally comprising;

a handheld device configured to be located external to the patient's body;

a coil within said handheld device suitable for generating a magnetic field when energized;

driver circuitry within said handheld device for energizing said coil;

a controller within said handheld device for generating a sequence of magnetic fields; and

a power source for powering said handheld device.

23. (Original) The system of claim 18 wherein said sensor comprises a magnetoresistive sensor.

24. (Original) The system of claim 18 wherein said sensor comprises a saturated core sensor.

25. (Original) The system of claim 18 wherein said sensor dissipates power when sensing a magnetic field and said implantable device additionally

comprises circuitry for periodically applying and removing power from said sensor and sampling said sensor during time periods corresponding to when said power is applied.

26. (Original) The system of claim 18 wherein said sensor is configured for measuring the intensity of said externally applied magnetic field.

27. (Original) The system of claim 18 wherein said sensor comprises a magnetoresistive sensor.

28. (Original) The system of claim 18 wherein said sensor is configured for measuring the polarity of said externally applied magnetic field.

29. (Original) The system of claim 18 wherein said sensor is configured for measuring the intensity and the polarity of said externally applied magnetic field.

30. (Original) The system of claim 29 wherein said sensor comprises:

a magnetoresistive sensor; and

a bias magnet.

31. (canceled)

32. (canceled)

33. (canceled)

34. (canceled)

35. (New) The system of claim 1 wherein said implantable device includes a plurality of implantable devices each with a unique identifiable timing sequence.

36. (New) The system of claim 18 wherein said implantable device includes a plurality of implantable devices each with a unique identifiable timing sequence.

37. (New) An improved implantable device configured for stimulating tissue within a patient's body wherein said implantable device is contained within a sealed elongate housing having an axial dimension of less than 60 mm and a lateral dimension of less than 6 mm, said system comprising:

a sensor within said implantable device sensitive to the presence of an externally applied DC magnetic field;

a controller within said implantable device coupled to said sensor for monitoring the presence of said externally applied DC magnetic field and identifying timing sequences of the application and removal of said externally provided DC magnetic field; and wherein

said controller is configured to cause a shutdown of said implantable device in direct response to detection of a discrete identifiable timing sequence of the application and removal of said externally provided DC magnetic field; and

a receiver within said implantable device for receiving at least one implantable device operation parameter transmitted externally of said implantable

device, said receiver capable of receiving said at least one operation parameter independent of said sensor.

38. (New) The implantable device of claim 37 wherein said sensor comprises a magnetoresistive sensor.

39. (New) The implantable device of claim 37 wherein said sensor comprises a saturated core sensor.

40. (New) The implantable device of claim 37 wherein said sensor dissipates power when sensing a magnetic field and said implantable device additionally comprises circuitry for periodically applying and removing power from said sensor and sampling said sensor during time periods corresponding to when said power is applied.

41. (New) The implantable device of claim 37 wherein said sensor is configured for measuring the intensity of said externally applied magnetic field.

42. (New) The implantable device of claim 41 wherein said sensor comprises a magnetoresistive sensor.

43. (New) The implantable device of claim 37 wherein said sensor is configured for measuring the polarity of said externally applied magnetic field.

44. (New) The implantable device of claim 37 wherein said sensor is configured for measuring the intensity and the polarity of said externally applied magnetic field.

45. (New) The implantable device of claim 44 wherein said sensor comprises:

a magnetoresistive sensor; and

a bias magnet.

The following is an examiner's statement of reasons for allowance: The prior art of record does not disclose or render obvious a system for implantable stimulators that have a receiver for receiving at least one operating parameter and a sensor and controller responsive to magnetic field applications for identifying unique magnetic field sequences that may disable and/or enable the functioning of the implantable device and thus allowing the control of individual stimulators over one another in emergency situations.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should

preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

MWB

November 13, 2005